

10/063473

DEGENERATE BIRDCAGE RESONATOR FOR MAGNETIC RESONANCE IMAGING

Abstract of Disclosure

An apparatus for magnetic resonance imaging is disclosed. In an exemplary embodiment, the apparatus includes a degenerate birdcage coil having a pair of opposing rings and a plurality of rungs positioned circumferentially around the pair of rings. Input excitation circuitry is used for applying excitation radio frequency (RF) energy to the degenerate birdcage coil at a first resonance mode of the coil. In addition, output receiving circuitry is used for receiving RF energy emitted by an object positioned within the degenerate birdcage coil. The output receiving circuitry receives the emitted RF energy at a plurality of resonance modes of the degenerate birdcage coil, including said first resonance mode. Thereby, the degenerate birdcage coil may be used as a phased array or for sensitivity encoding.

[illegible]